AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 10, lines 3-11 with the following amended paragraph:

Referring to the drawings, where similar elements have the same reference numerals, a thermal transfer roller 10 of the invention includes an outer cylindrical shell 12 which contacts the nonwoven web or other substrate being heated or cooled, an inner cylindrical shell 14, and an annulus 16 between the inner and outer cylindrical shells through which heat transfer fluid may flow. The annulus 16 may be entirely open (free of individual channels), or may include a plurality of individual channels 18 as shown in Fig. 3, separated by spiral walls 20, which carry heat transfer fluid from a first ~~(inlet)~~ end [[22]] 21 to a second ~~(outlet)~~ end [[24]] 22 of the annulus and thermal transfer roller 10.

Please replace the paragraph at page 10, line 12 to page 11, line 4 with the following further amended paragraph:

Referring to Fig. 2, a hollow passage 24 extends along a central axis of the thermal transfer roller 10, and communicates at one end with an inlet channel 26 for heat transfer fluid, which supplies fluid to the passage 24 as shown by the arrows. In the embodiment shown, the passage 24 initially carries the fluid through the center of the roller from the second end 22 to the first end 21 thereof. A first disk-shaped chamber 28 at the first end [[20]] 21 of the roller is defined between inner roller wall 30, first roll journal 32, and the cylindrical annulus 16. The first disk-shaped chamber 28, which is a fluid inlet chamber, carries heat transfer fluid from the passage 24 to the annulus 16, via a cylindrical fluid entry slot 34 (Fig. 2), or a plurality of smaller, individual fluid entry openings 35 (Fig. 1) formed in the inner cylindrical shell 14. The heat transfer fluid from inlet chamber 28 passes into and through the annulus 16 as the roller 10 is rotating, sometimes at high velocity, whereupon the heat transfer fluid heats (or cools) the outer cylindrical shell 12, which in turn conducts and transfers the heat (or cooling) to a substrate. In the embodiment shown, the heat transfer fluid circulates around the annulus 16 in a spiral flow pattern via channels 18.